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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,280	01/21/2004	Akihiro Kimura	03500.017840.	9839

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EXAMINER	
RAABE, CHRISTOPHER M	

ART UNIT	PAPER NUMBER
2879	

MAIL DATE	DELIVERY MODE
07/08/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/760,280	KIMURA ET AL.	
	Examiner	Art Unit	
	CHRISTOPHER M. RAABE	2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 April 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3 and 8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3,8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Applicant's submission, filed 09 April 2008, has been entered and acknowledged by the examiner.

Applicant's arguments with respect to the rejections of the claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1,3,8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato (USPN 2001/0039161), in view of Suzuki (USPN 6638128).

With regard to claim 1,

Sato discloses in at least figures one and three, an energization processing apparatus for performing an energization process on electric conductors (not labeled) which are placed on a substrate (101), comprising: a vessel (102) which has an exhaust hole (not labeled, junction between vessel 102 and evacuation system 106) and which covers the electric conductors (not labeled) and a part (not labeled, that covered by vessel 102) of a surface of the substrate (101) where the electric conductors (not labeled) are placed, to create an airtight atmosphere (via 103) between the substrate (101) and the vessel (102), a first temperature adjusting mechanism (111,112, inner 311,312) for adjusting temperature of an area of the part of the substrate (101) inside the vessel (102); and a second temperature adjusting mechanism (111,112,outer 311,312) for adjusting temperature of an area of the substrate (101) outside the vessel (102). Note Sato discloses multiple, independently controllable temperature adjusting mechanisms in conjunction with a vessel that contains the entire substrate (fig 3) or a single temperature controlling mechanism in conjunction with a vessel as in the claimed invention (fig 1),

While Sato does not disclose a configuration of the substrate, vessel, and temperature adjusting mechanisms wherein the temperatures of the first and second mechanisms can be adjusted independently in combination with the claimed vessel-substrate configuration, a configuration wherein the temperature of the second temperature adjusting mechanism is higher than that of the first temperature adjusting mechanism (the second adjusting the temperature outside the vessel, the first inside) would have been obvious to one of ordinary skill in the art at the time of the invention in view of Suzuki (column25, line 50 through column 26, line 10) where heater units and cooling tubes are provided to eliminate temperature differences generated between the device region (area covered by the vessel in Sato) and a peripheral region (area not covered by the vessel in Sato).

With regard to claim 3,

Sato discloses an energization processing method in at least figures 1 and 3 and paragraphs 64,65 for performing an energization process on electric conductors (not labeled) which are placed on a substrate (101), comprising the steps of: covering the electric conductors (not labeled) and a part of a surface of the substrate (101) where the electric conductors are placed with a vessel (102) which has an exhaust hole (not labeled, junction between evacuation system 106 and vessel 102), to create an airtight atmosphere (via 103) between the substrate (101) and the vessel (102), reducing a pressure of the airtight atmosphere, and heating an area of the part of the substrate inside the vessel by a first temperature adjusting mechanism (111,112, inner 311,312), and an area of the substrate outside the vessel by a second temperature adjusting mechanism (111,112, outer 311,312). Note Sato discloses multiple, independently controllable temperature adjusting mechanisms in conjunction with a vessel that contains the entire substrate (fig 3) or a single temperature controlling mechanism in conjunction with a vessel as in the claimed invention (fig 1),

While Sato does not disclose a configuration of the substrate, vessel, and temperature adjusting mechanisms wherein the temperatures of the first and second mechanisms can be adjusted independently in combination with the claimed vessel-substrate configuration, a configuration wherein the temperature of the second temperature adjusting mechanism is higher than that of the first temperature adjusting mechanism (the second adjusting the temperature outside the vessel, the first inside) would have been obvious to one of ordinary skill in the art at the time of the invention in view of Suzuki (column25, line 50 through column 26, line 10) where heater units and cooling tubes are provided to eliminate temperature differences generated between the device region (area covered by the vessel in Sato) and a peripheral region (area not covered by the vessel in Sato).

With regard to claim 8,

Sato discloses in at least figures 1 and 3 and paragraphs 8,64,65, an electron source manufacturing method by energizing electric conductors (not labeled) which are placed on a substrate (101) to form electron-emitting regions in the electric conductors (not labeled), comprising steps of: covering the electric conductors (not labeled) and a part of a surface of the substrate (101) where the electric conductors are placed with a vessel (102) which has an exhaust hole (not labeled, junction between vessel 102 and evacuation system 106), to create an airtight atmosphere (via 103) between the substrate (101) and the vessel (102); reducing a pressure of the airtight atmosphere; and heating an area of the part of the substrate inside the vessel by a first temperature adjusting mechanism (111,112, inner 311,312), and an area of the substrate outside the vessel by a second temperature adjusting mechanism (111,112, outer 311,312), and energizing the electric conductors. Note Sato discloses multiple, independently controllable temperature adjusting mechanisms in conjunction with a vessel that contains the entire substrate (fig 3) or a single temperature controlling mechanism in conjunction with a vessel as in the claimed invention (fig 1),

While Sato does not disclose a configuration of the substrate, vessel, and temperature adjusting mechanisms wherein the temperatures of the first and second mechanisms can be adjusted independently in combination with the claimed vessel-substrate configuration, a configuration wherein the temperature of the second temperature adjusting mechanism is higher than that of the first temperature adjusting mechanism (the second adjusting the temperature outside the vessel, the first inside) would have been obvious to one of ordinary skill in the art at the time of the invention in view of Suzuki (column25, line 50 through column 26, line 10) where heater units and cooling tubes are provided to eliminate temperature differences generated

between the device region (area covered by the vessel in Sato) and a peripheral region (area not covered by the vessel in Sato).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER M. RAABE whose telephone number is (571)272-8434. The examiner can normally be reached on m-f 7am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Christopher Raabe/

/NIMESHKUMAR D. PATEL/
Supervisory Patent Examiner, Art Unit 2879